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FIG. 1

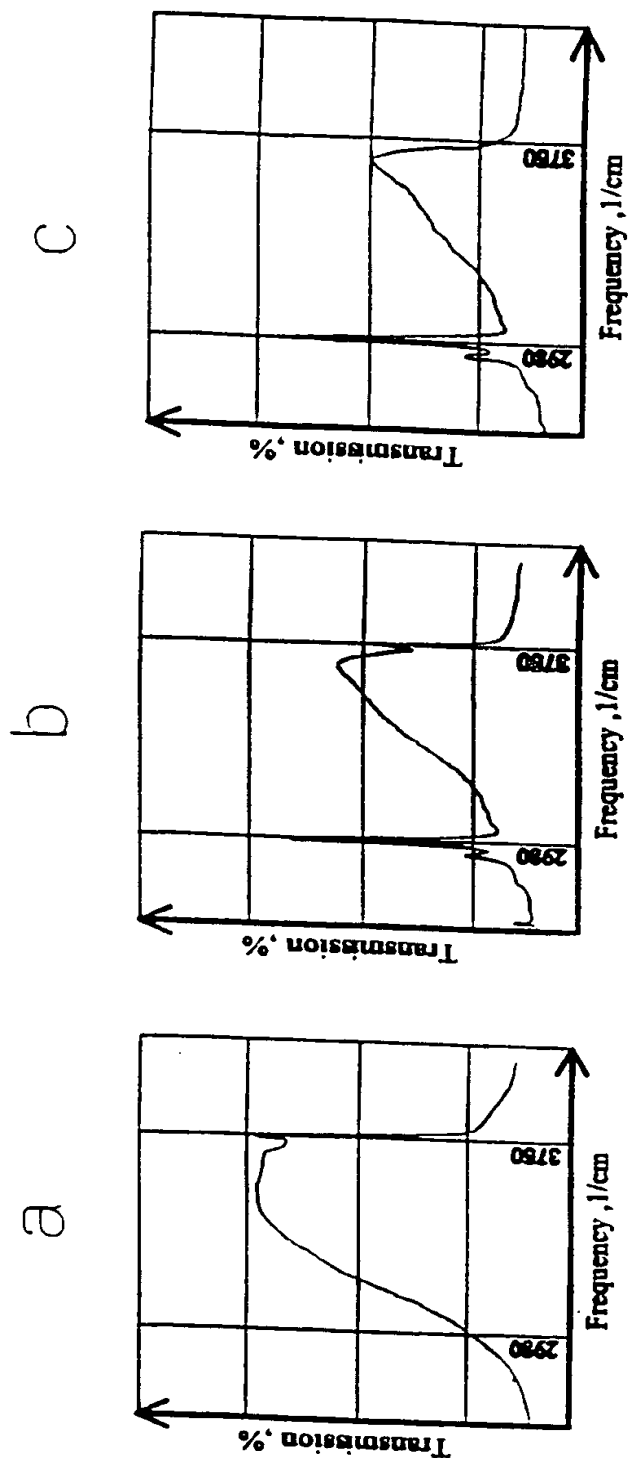


Fig. 1

2/16



Fig. 2

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3/16

The number  $N_{\epsilon}$  of boxes of size  $1/n$  needed to cover the fractal  
(photo 005239) LB +SI) . The fractal dimension  $D=1.82$

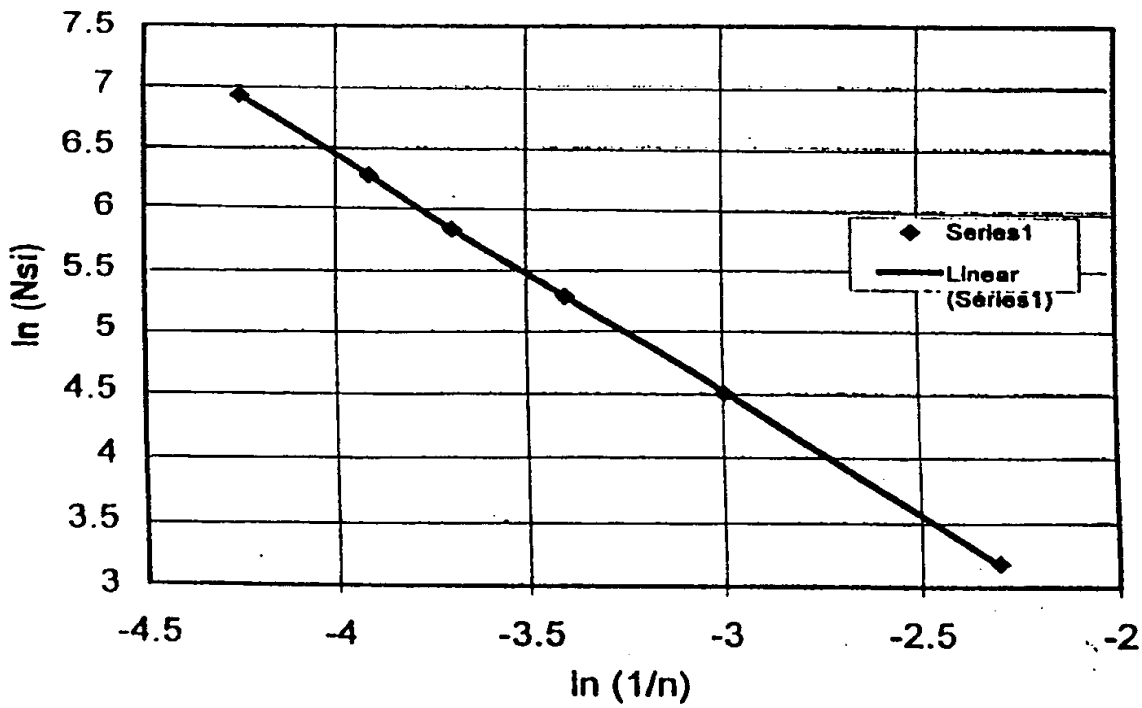


Fig. 3

4/16

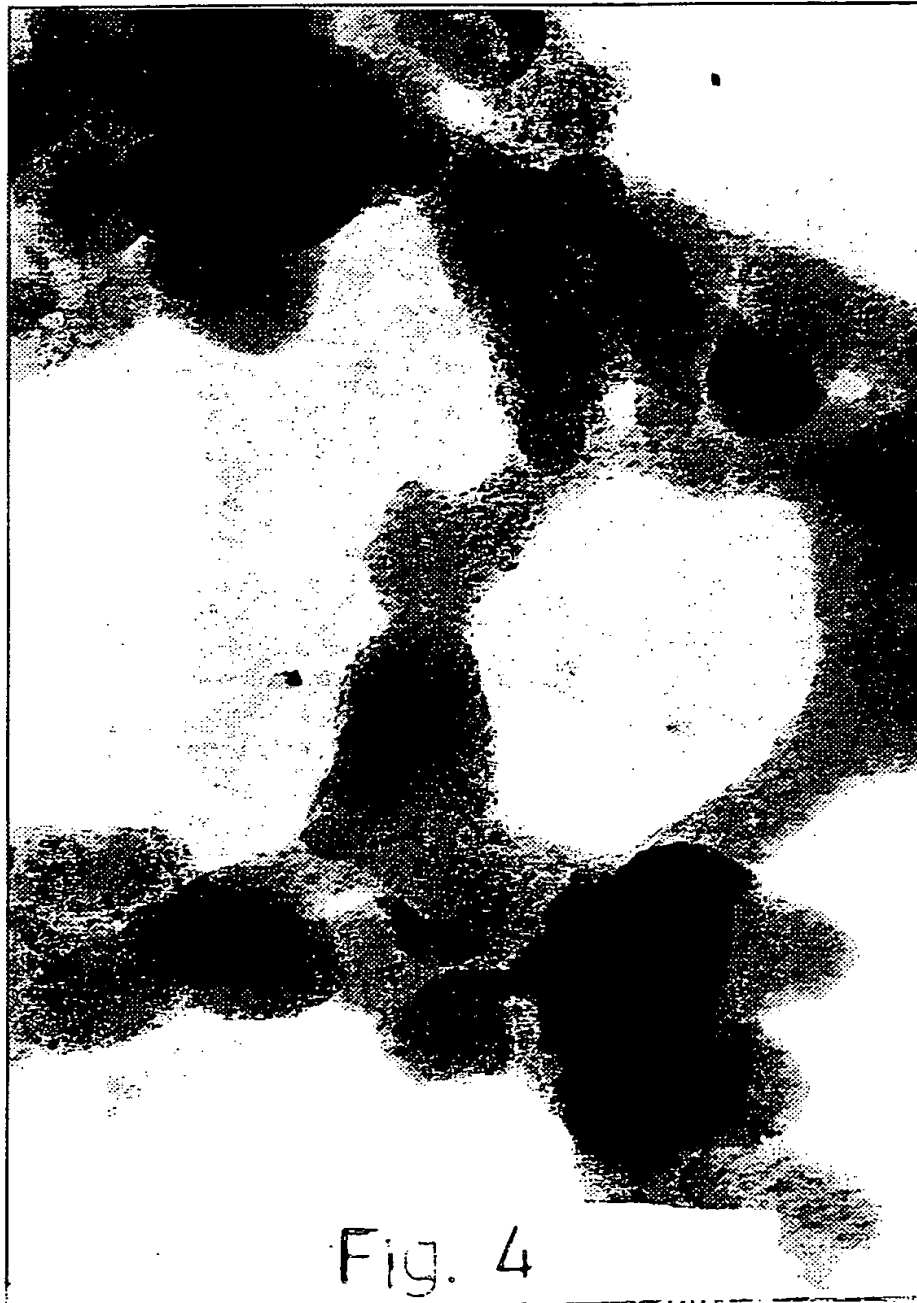


Fig. 4

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Li-  
g-  
n

6/16

N	Substance	Mechanism	Application
1	X 1	Y 1 - Y 5	Z 1 - Z 5
2	X 2	Y 1 - Y 20	Z 1 - Z 7
3	X 3 X 3'	Y 1 - Y 23 Y 24	Z 1 - Z 7
4	X 4	Y 1 - Y 23; Y 25;	Z 1 - Z 7
5	X 5	Y 27	Z - Z 3
6	X 6	Y 1 - Y 23; Y 25; Y 26	Z 1 - Z 7
7	X 7	Y 28	Z 8
8	X 8	Y 1 - Y 20	Z 1 - Z 3

Fig. 6

09700496-02201

7/16

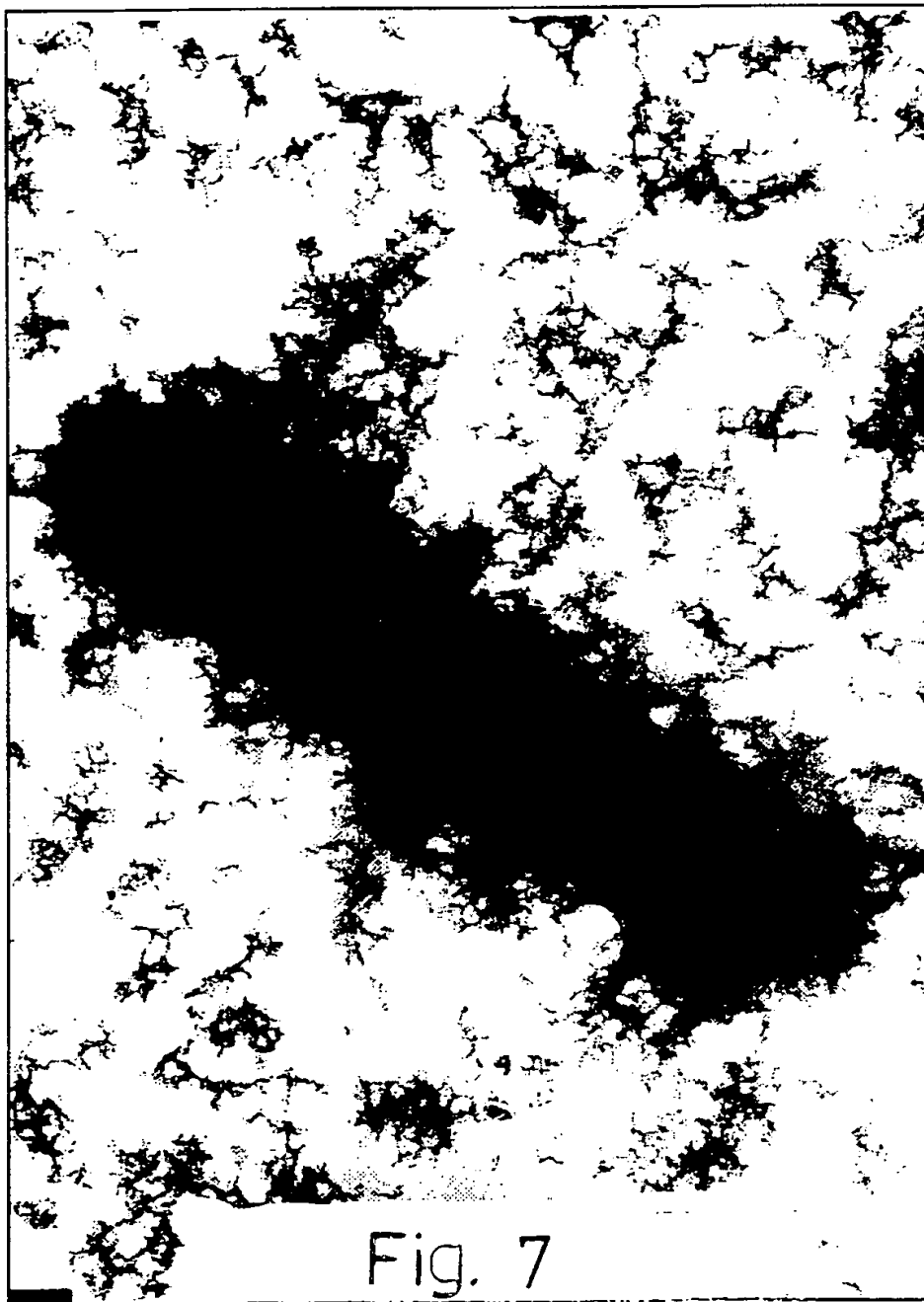


Fig. 7

09/700496



8/16

Results from microbiological experiments:

- Type of Bacteria: Paenibacillus A-50
- Particles : SiO<sub>2</sub>, Modified SiO<sub>2</sub>, Modified SiO<sub>2</sub> + TiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>
- Measured index : Growth on agar plates in presence of particles

Particle Type	Treatment	concentration				
		1%	0.5%	0.25%	0.2%	0.1%
<u>Control</u> (No Particles)	-	Full Growth	Full Growth	Full Growth	Full Growth	Full Growth
	<u>SiO<sub>2</sub></u>	Full Growth	Full Growth	Full Growth	-	-
	(X1)	0	0	0	-	-
	Inside and on top of agar	-	-	-	0	0
<u>Modified SiO<sub>2</sub> and Modified SiO<sub>2</sub> + TiO<sub>2</sub></u>	Inside agar	-	-	-	0	0
	On top of agar	-	-	-	0	0
	Inside and on top of agar	-	-	-	0	0
	<u>Al<sub>2</sub>O<sub>3</sub></u>	-	-	-	-	-
(X1)	Inside agar			Full Growth	-	Full Growth
	Inside and on top of agar			0	-	0

Fig. 8

9/16

HISTOGRAM OF COLONY AREAS

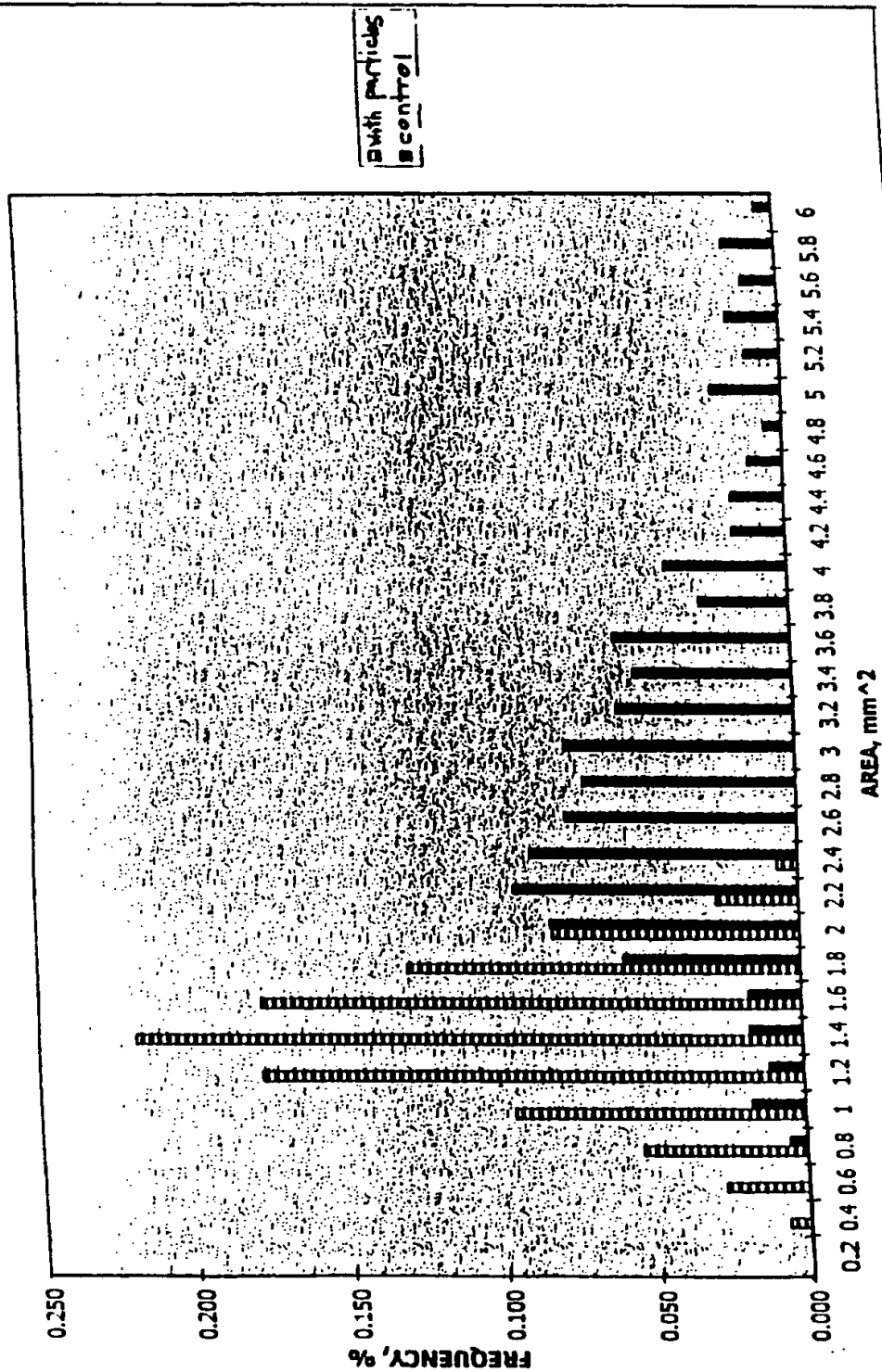


Fig. 9

10/16

Influence of particles on the Level of Chlorides in Rats Serum Blood.

a

Dose	Chloride Level (mmol/l) over time(days) after exposure				
	10	20	30	60	90
Control	78.1±4.91	91.3±7.68	94.8±8.43	91.3±2.75	98.8±2.75
100mg/kg	86.5±2.14	92.6±4.55	99.6±5.24	94.0±5.96	105.0±4.38
330mg/kg	88.0±3.41	94.0±4.68	94.1±5.84	97.7±4.17	105.0±3.93
1000mg/kg	90.0±0.64	110.4±2.42	122.4±6.20	102.4±4.08	109.2±5.14

Influence of particles on the Level of  $\beta$ -lipoprotein in Rats Serum Blood.

b

Dose	$\beta$ -lipoprotein Level (g/l) over time(days) after exposure.				
	10	20	30	60	90
Control	0.58 ± 0.043	0.58 ± 0.073	0.52 ± 0.043	0.63 ± 0.074	0.60 ± 0.084
100mg/kg	0.55 ± 0.097	0.41 ± 0.090	0.42 ± 0.097	0.64 ± 0.150	0.47 ± 0.043
330mg/kg	0.46 ± 0.103	0.43 ± 0.062	0.39 ± 0.118	0.38 ± 0.107	0.43 ± 0.104
1000mg/kg	0.39 ± 0.043	0.28 ± 0.071	0.32 ± 0.064	0.35 ± 0.054	0.46 ± 0.084

Fig. 10

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# ALTERATION OF SENSITIVITY TO ANTIBIOTICS WITH PARTICLE TREATMENT

11/16

	PENICILLIN	AMPICIL- LIN	STREPTO- MYCINE	GENTAMY- CINE	TETRACY- CLINE	LEVOMY- CITINE	ERYTHRO- MYCINE	KANAMICINE
CONTROL	20	60	60	80	40	40	40	80
WITH PARTICLE TREATMENT	33	67	100	100	67	67	100	100

Fig.11

# TREATMENT OF PURULENT INFLAMMATORY DISEASES

12/16

GROUP	NUMBER OF PATIENTS	HOSPITALIZED. %	AMBULATORY THERAPY PROLONGATION. %	AVERAGE TIME OF IN HOSPITAL THERAPY. (DAYS)	Need in THERAPY for ANTIBIOTICS. %
CONVENTIONAL THERAPY + PARTIAL	50	62.0	64.4	11.2 ± 0.5	33.0
CONTROL GROUP CONVENTIONAL THERAPY	39	61.5	5.0	15.2 ± 0.7	92.3

Fig. 12

13/16

**Infection****REGRESS IN CLINICAL MANIFESTATIONS AND  
NORMALIZATION OF LABORATORY INDEX ON FIFTH DAY OF  
INVESTIGATION.****% of patients with regress in symptoms**

<b>Sickness</b>	<b>Particle Treatment</b>		<b>Standard treatment</b>	
	<b>HEPATITIS A %</b>	<b>GASTROENTERITIS %</b>	<b>HEPATITIS A %</b>	<b>GASTROENTERITIS %</b>
<b>1. FEVER</b>	<b>89.0</b>	<b>95.0</b>	<b>73.0</b>	<b>75.0</b>
<b>2. SICKNESS. VOMITING</b>	<b>98.0</b>	<b>99.0</b>	<b>62.0</b>	<b>67.0</b>
<b>3. WEAKNESS</b>	<b>90.0</b>	<b>97.0</b>	<b>89.0</b>	<b>78.0</b>
<b>4. DIARRHEA</b>	—	<b>100.0</b>	—	<b>81.0</b>
<b>5 FLATULENCE</b>	—	<b>100.0</b>	—	<b>53.0</b>
<b>6. ACTIVE ALANINAMINO- TRANSFERASE</b>	<b>51.0</b>	—	<b>29.0</b>	—
<b>7-CITOGRAME OF FAECES</b>	—	<b>100.0</b>	—	<b>53.0</b>
<b>8-HYPERBILLI- RUBINEMIA</b>	<b>69.0</b>	—	<b>52.0</b>	—
<b>9-RECURRING CULTUR OF MICROBES</b>	—	<b>8.0</b>	—	<b>11.0</b>
<b>10- SKIN ITCHING</b>	<b>95.0</b>	—	<b>30.0</b>	—

**Fig. 13**

09/700496-022301

# Surgery

# PARTICLE TREATMENT IMPACT ON THE WOUND MICROFLORA SENSITIVITY TO ANTIBIOTICS

SENSITIVITY %	PENICILLIN	AMPICIL- LIN	STREPTO- MYCINE	GENTAMY- CINE	TETRACY- CLINE	LEVOMY- CITINE	ERYTHRO- MYCINE	KANAMICINE
Standard wound treatment	20	60	60	80	40	40	40	80
Particle Wound Treatment	33	67	100	100	67	67	100	100

Fig. 71

Dentology

15/16

**Clinical-Laboratory Index Dynamics for Patients with**  
**Periodontitis.**  
**Treatment by Medical Substances on the**  
**particle. surface.**

№ group		Resistance of capillary's (sec.)		Saliva Haemoglobin, units		Monogramme, units					
						Promonocyte's		Monocyte's		Polymorpho nuclear's	
		Mild Level	Middle Level	Mild Level	Middle Level	Mild Level	Middle Level	Mild Level	Mild Level	Mild Level	Middle Level
1 antibiotic	Before treat	30.85	9.33	0.014	0.13	16.33	14.7	26.3	28.16	57.46	57.7
	After treat	38.94	21.83	0.0000 58	0.04	22.29	21.03	28.59	43.11	51.29	36.8
2 antibiotic + Urea	Before treat	14.3	11.21	0.049	0.13	15.36	10.9	25.91	28.5	58.73	56.6
	After treat	24.3	23.18	0.007	0.09	19.55	27.00	28.2	28.5	52.3	44.5
3 Furacilline	Before treat	9.24	9.24	0.031	0.12	16.29	10.53	25.35	20.0	59.46	60.4
	After treat	20.11	20.11	0.003	0.06	20.23	17.21	29.11	29.8	51.11	53.0
4 Arnous calamus	Before treat	11.5	11.35	0.023	0.20	13.0	45.83	28.0	20.84	59.0	64.3
	After treat	19.8	22.91	0.007	0.13	19.0	21.06	29.11	26.37	51.89	57.5

Fig.15



16/16

**Ailment**

Scars and keloids  
Pruritis Senilis  
Cuprosis  
Acne vulgaris  
Scratches and fissures  
Alopecia

**Treatment**

$\text{CaF}_2$   
Mg  
 $\text{BaCo}_3$   
 $\text{CaS}$ ,  $\text{SiO}_2$   
 $\text{AgNO}_3$   
Zn

**Fig. 16**

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